

*user guide*

**Meridian 557 Stereo Power Amplifier**

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# **Introduction**

**I**n choosing the 557 Stereo Power Amplifier you have acquired a component that combines major advances in audio and engineering design.

**The 557 Stereo Power Amplifier uses a unique feedback topology and precision local error correction system. It includes a massive twin wound toroidal transformer, and the unit has full thermal, load, and DC protection.**

**The 557 Stereo Power Amplifier can also be operated in bridge mode, for over three times the power output to a single loudspeaker.**

**This guide is designed to enable you to obtain the best possible results from the unit in conjunction with the other units in your system.**

# The Meridian 500 Series

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The Meridian 500 Series is a unique system of digital, analogue, and video components designed to meet the demand for absolute quality, ease of use, and lasting value.

The flexibility of the Meridian 500 Series is such that you can assemble a system as simple or as complex as you need, perfectly suited to your musical and environmental requirements, and with the ability to add to it or change it at a later date should your requirements change. The 500 Series is also compatible with the existing Meridian 200 Series and 600 Series components.

Each Meridian 500 Series component is housed in a matching slim line case. Front panel controls provide access to the most important functions, and the full range of functions is available from the Meridian System Handset using a simple and intuitive control interface.

## 500 Series communications

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The Meridian 500 Series includes a sophisticated communications link, to ensure that any configuration of units will work together as a fully integrated system.

The 500 Series communications system allows you to control any combination of units using a single handset, and ensures that your commands from the handset are interpreted unambiguously. It also allows all the units to be switched off from the front panel of any unit in the system.

## Professional features

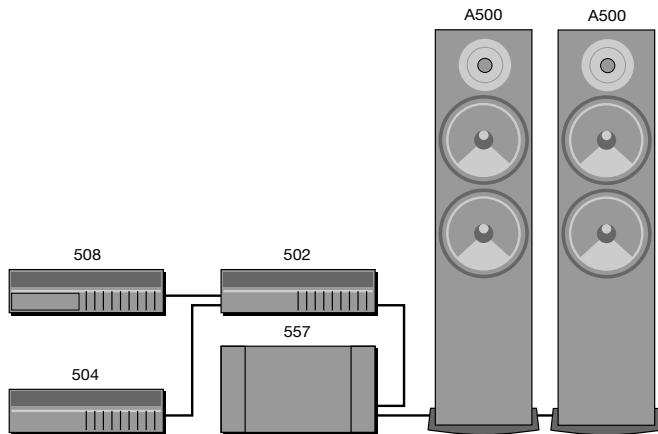
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The 500 Series also provides features for professional users, including RS232 computer control, and balanced connections.

The following pages give examples of four suggested configurations to illustrate the flexibility of the Meridian 500 Series.

# Sample configurations

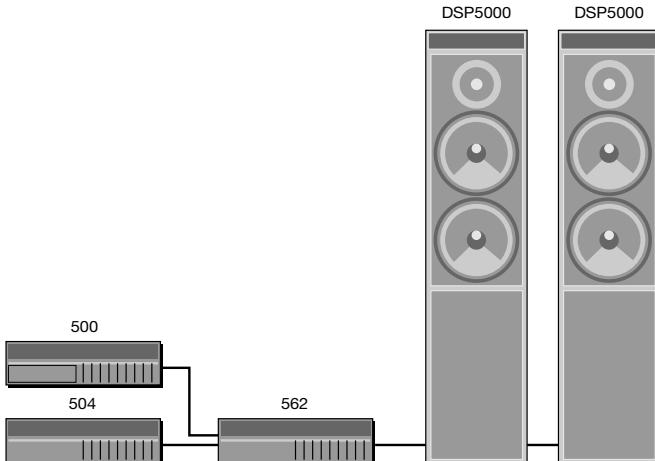
## 508 Compact Disc Player



The 508 Compact Disc Player is an integrated CD transport and converter, providing both digital and analogue outputs.

The 508 Compact Disc Player is ideally suited for use with the Meridian 557 Stereo Power Amplifier and A500 Loudspeakers, with control over the volume and source selection provided by the 502 Analogue Controller. These units provide balanced inputs and outputs, allowing a completely balanced system to be created.

## 500 Compact Disc Transport



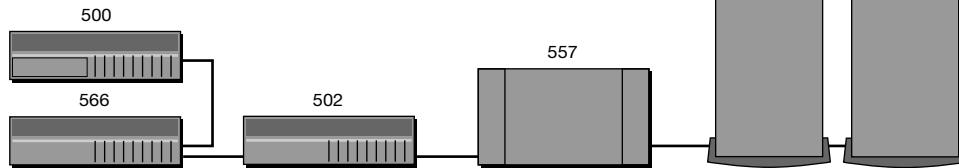
The 500 Compact Disc Transport provides a precision digital output, and can drive DSP5000 Digital Loudspeakers directly.

A 562 Digital Control Unit can be added to cater for conventional analogue sources, and provide source selection between up to 12 different analogue or digital sources.

The 504 FM Tuner is an ideal addition to the system if radio reception is required.

## 566 20-bit Digital to Analogue Converter

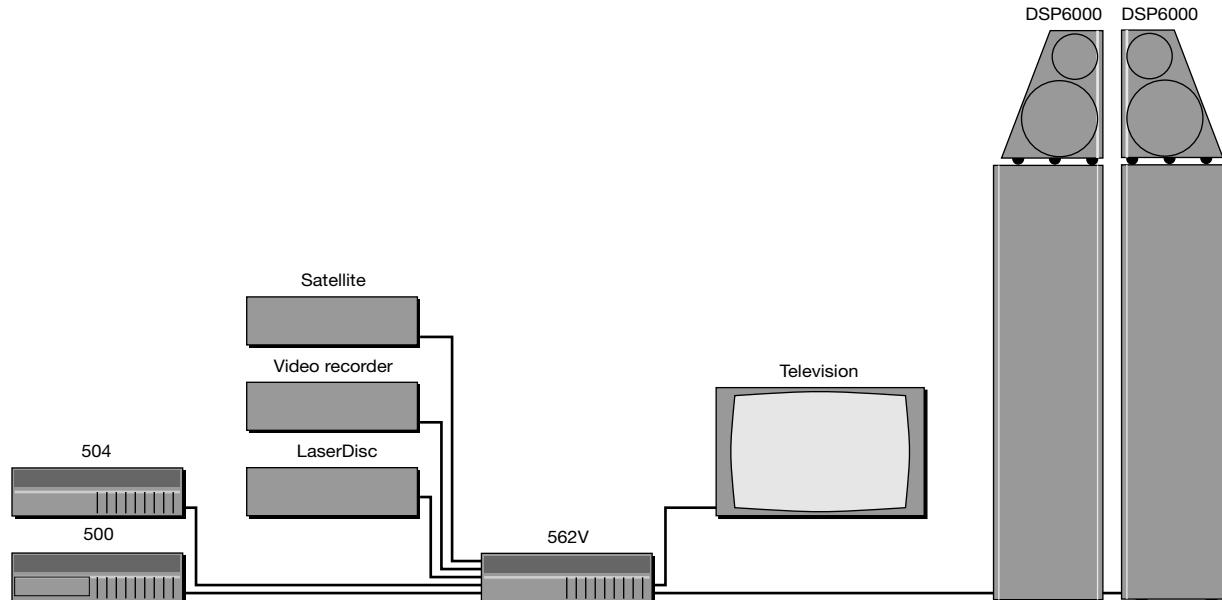
## 502 Analogue Controller



The digital output provided by the 500 Compact Disc Transport can be decoded by the 566 20-bit Digital to Analogue converter to provide a high-quality audio output for use with a conventional audio preamplifier. The 566 20-bit Digital to Analogue Converter can also decode digital signals from other sources, including LaserDisc players and Digital Audio Tape.

The 502 Analogue Controller is a full function preamplifier for use with any analogue source, and includes balanced inputs to allow you to take advantage of balanced sources, including the 566 20-bit Digital to Analogue Converter. It provides balanced outputs which are ideal for use with the 557 Stereo Power Amplifier.

## 562V Multimedia Controller



The 562V Multimedia Controller is the ideal control unit for use with the Meridian DSP6000 Digital Loudspeakers.

It provides direct digital inputs for digital sources, such as the 500 Compact Disc Transport and LaserDisc sound, together with precision Delta Sigma Analogue to Digital Conversion, for

conventional analogue sources such as the 504 FM Tuner and video sound.

It also includes video switching for CVBS and S-VHS signals, such as from a satellite receiver, LaserDisc player, or video recorder.

# **Specification and accessories**

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## **Specification**

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<b><i>Input</i></b>	1.4V RMS.
<b><i>Output (stereo)</i></b>	Greater than 200W per channel into 8Ω. Greater than 300W per channel into 4Ω.
<b><i>Output (bridge)</i></b>	Greater than 390W into 16Ω. Greater than 650W into 8Ω. Greater than 950W into 4Ω.
<b><i>Distortion</i></b>	Less than 0.05%.
<b><i>Noise</i></b>	Less than -90dB.
<b><i>Finish</i></b>	Black textured enamel and glass. Heatsinks black painted aluminium.
<b><i>Dimensions</i></b>	176mm x 400mm x 320mm (6.9" x 15.7" x 12.6").
<b><i>Weight</i></b>	27kg.
<b><i>Consumption</i></b>	30VA quiescent, 1200VA max.

## **Available accessories**

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The following accessories are available from your dealer:

- Power cord Europe.
- Power cord Canada and USA.

Meridian Audio reserves the right to amend product specifications at any time.

# **Setting up the Stereo Power Amplifier**

**T**his chapter explains how to install the Stereo Power Amplifier. It describes what you should find when you unpack the Stereo Power Amplifier, how you should connect it to your other audio equipment, and the siting constraints.

**You should not make any connections to the Stereo Power Amplifier or to any other component in your system whilst the AC power supply is connected and switched on.**

# Unpacking

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The 557 Stereo Power Amplifier comes in a box containing the following components:

- 557 Stereo Power Amplifier.
- 1 power cord.
- 2 phono shorting plugs.
- This manual.

You are advised to retain the packing in case you need to transport the unit.

**The 557 Power Amplifier weighs 27kg. Do not attempt to lift it without assistance.**

## Before connecting power

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Before you begin installation you should ensure that your Stereo Power Amplifier is set to the correct voltage for your local AC supply. If it is not, do not try to install the unit, and contact your dealer.

**Do not make connections, or insert or remove plugs, while the unit is connected to the supply and switched on, as the transients generated could damage the loudspeakers.**

Once set up, the Stereo Power Amplifier can be left switched on as it consumes negligible power when not in use.

If you are not going to use the Stereo Power Amplifier for a period of several days you should switch the unit completely off, at the back panel, and disconnect it from the AC power supply.

## To position the Stereo Power Amplifier

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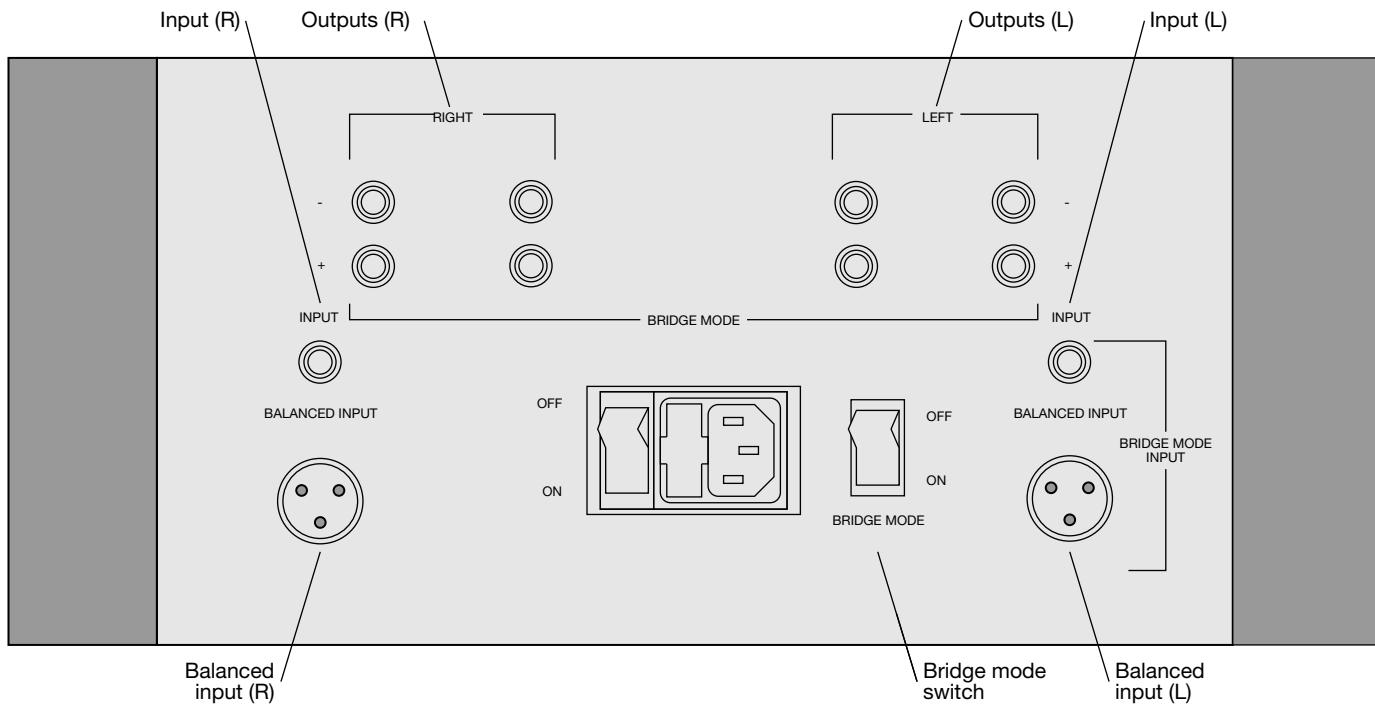
During normal operation the heatsinks, ie the fins at each end of the case, may become quite hot. The Stereo Power Amplifier should therefore be positioned to allow a free flow of air around the fins.

Do not place the Stereo Power Amplifier:

- In direct sunlight.
- Near heat sources, eg a radiator.
- Stacked with any other audio products, as the heat it generates may damage the other products.

# Connecting the Stereo Power Amplifier

## Back panel



## Outputs

The following table gives details of the output connections:

<i>Use this output</i>	<i>To connect to this</i>
LEFT, RIGHT	Loudspeakers of $4\Omega$ to $15\Omega$ , using either plug or bare wire connections.
BRIDGE MODE	A loudspeaker of $6\Omega$ to $15\Omega$ ; see <i>To wire to an A500 Loudspeaker in bridge mode</i> , page 12.

Each channel of the 557 Stereo Power Amplifier provides twin outputs for bi-wiring. On speakers that provide separate connections to the bass/mid and tweeter units this allows the units to be connected independently to the Stereo Power Amplifier, for optimum sound quality.

Alternatively, for loudspeakers providing a single pair of inputs, either of the output terminals can be used.

## Inputs

The following two alternative audio inputs are provided:

<i>Use this input</i>	<i>To connect to this</i>
LEFT INPUT, RIGHT INPUT	A preamplifier, using phono connectors and high-quality screened cable.
BALANCED INPUTS	A balanced analogue output, using XLR connectors:  1 (Green) = GND 2 (Red) = +ve 3 (Black) = -ve

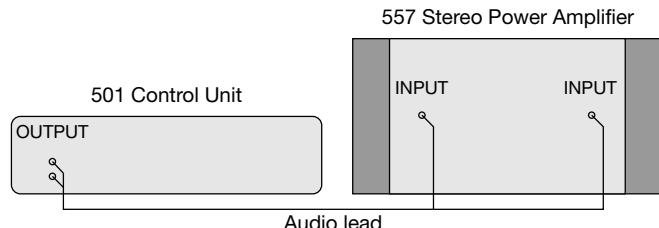
When using the balanced inputs the phono inputs should be shorted, using the two phono shorting plugs supplied.

## To connect to a conventional preamplifier

- Connect the sockets marked INPUT on the back panel of the Stereo Power Amplifier to the outputs from your preamplifier.

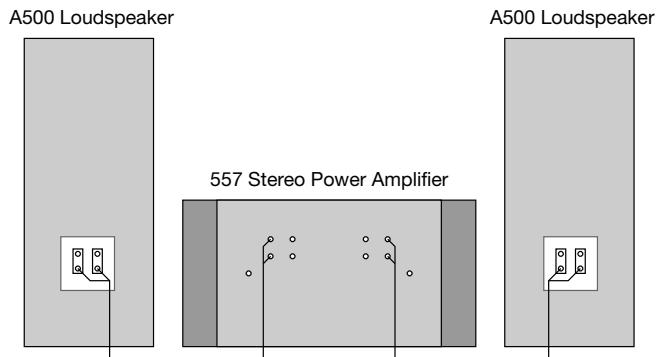
You should either use a twin-screened audio cable, or a pair of single-screened audio cables. These cables can have a considerable effect on the quality of the sound, and you are advised to seek your dealer's advice on the best type of cables for your system.

## To connect to a 501 Control Unit



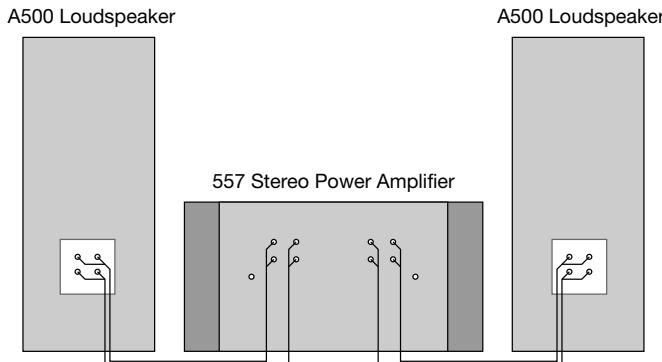
- Connect the sockets marked OUTPUT L and R on the back panel of the 501 Control Unit to the INPUT sockets on the back panel of the 557 Stereo Power Amplifier.

## To connect to A500 Loudspeakers



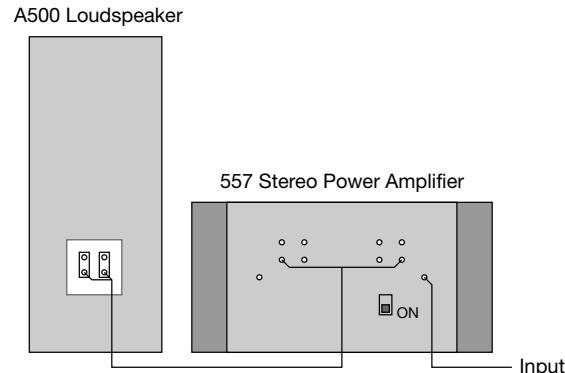
- Set the BRIDGE MODE switch to the OFF position.
- Use the links provided to bridge the HF and LF terminals on the back of each loudspeaker.
- Connect one of each pair of the red and black terminals on the back panel of the 557 Stereo Power Amplifier to the red and black terminals on the A500 Loudspeakers.

## To bi-wire to A500 Loudspeakers



- Set the BRIDGE MODE switch to the OFF position.
- If necessary, remove the links bridging the LF and HF terminals on the back of each loudspeaker.
- Connect the LF red and black terminals from each loudspeaker to the red and black terminals on the appropriate channel of the Stereo Power Amplifier, using twin loudspeaker cable.
- Connect the HF red and black terminals from each loudspeaker to the other pair of red and black terminals on the appropriate channel of the Stereo Power Amplifier.

## To wire to an A500 Loudspeaker in bridge mode



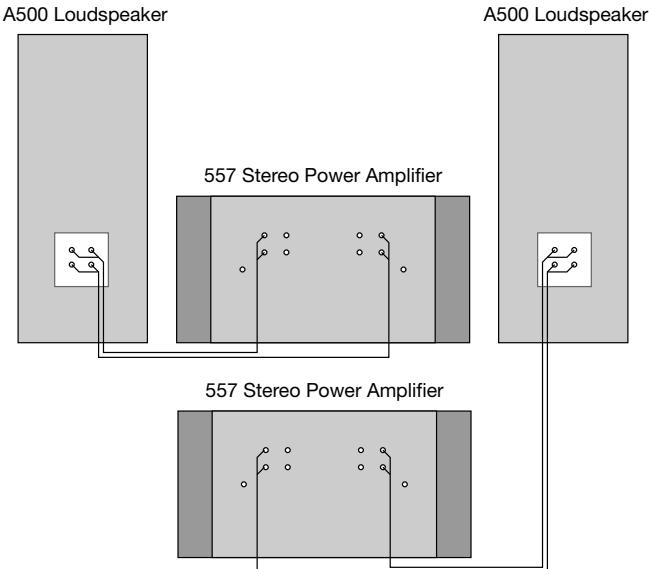
You can use the 557 as a mono power amplifier, to obtain more than three times the power output, by wiring it in bridge mode.

- Switch the BRIDGE MODE switch to the ON position.
- Connect the audio input to only the LEFT INPUT or LEFT BALANCED INPUT.
- Connect the loudspeaker between the red LEFT and RIGHT terminals, leaving the black terminals unconnected.

- Fit the phono shorting plugs supplied with the Stereo Power Amplifier to the unused phono input or inputs.

You can bi-wire in bridge mode by using the other pair of red terminals to connect separately to the loudspeaker treble unit.

## To bi-amp to two A500 Loudspeakers



Extremely high sound quality can be achieved using two separate 557 Power Amplifiers, one to drive each loudspeaker. The two channels in each amplifier are used to drive the LF and HF units in each loudspeaker.

- Switch the BRIDGE MODE on both amplifiers to the OFF position.
- Connect the left audio output from the preamplifier to both inputs on one amplifier.
- Connect the right audio output from the preamplifier to both inputs on the other amplifier.
- If necessary, remove the links bridging the LF and HF terminals on the back of each loudspeaker.
- Connect the red and black terminals from the LF and HF units on one loudspeaker to the red and black terminals on each channel of one amplifier.
- Likewise, connect the LF and HF units from the other loudspeaker to the other amplifier.

# Troubleshooting

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This section describes problems you may encounter when using the Stereo Power Amplifier, and includes suggested solutions.

If these suggestions fail to cure the problem, please contact your Meridian dealer for further assistance.

## No front panel indicator is shown

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- Check that your AC power supply is connected correctly.
- Check that the **ON OFF** switch on the back panel is in the ON position.
- Check that the fuse on the Stereo Power Amplifier back panel and the fuse in the unit's power plug have not blown; see *To change the mains fuse*, page 15.

## The output is noisy when using balanced leads

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- Check that the phono inputs are shorted, using the two phono shorting plugs supplied.

## The sound has cut out

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The 557 Stereo Power Amplifier includes a thermal shutdown, which mutes the output if the amplifier becomes too hot.

- Leave the amplifier for a few minutes to cool down, and the sound will come back on.

The 557 Stereo Power Amplifier also includes a power circuit breaker to protect the loudspeakers.

- Check the system for the cause of the cut out.
- Switch off, wait 5 seconds, then switch on to reset the power.

## The sound has a muddled stereo image and some information from the right-channel is lost

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- Check that the BRIDGE MODE switch is OFF when using the amplifier in stereo.

When the BRIDGE MODE switch is ON, and both left and right inputs are connected, the left output will be the correct stereo left signal, but the right output will be a left minus right signal.

# Maintenance

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## Cleaning

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When cleaning the Stereo Power Amplifier bear in mind that the front of the unit is metal, and the lid is glass.

Disconnect the power cord before cleaning the unit.

**Note:** Do not use abrasive cleaners on any part of the Stereo Power Amplifier.

## To clean the case

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- Use a slightly damp cloth.

Ensure that no water is allowed to get inside the case, and do not reconnect the power until you are certain that the Stereo Power Amplifier is completely dry.

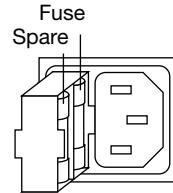
## To clean the audio connections

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The audio sockets on the back of the Stereo Power Amplifier are gold-plated and need no cleaning if gold-plated phono plugs are used. Otherwise, it is recommended that you unplug and reconnect the plugs at least once a year. A proprietary contact cleaner can be used to some advantage.

## To change the mains fuse

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- Remove the mains connector, and pull out the drawer next to the power input to access the fuses.

Before replacing a blown fuse, if possible ascertain the cause of the failure.

The fuse drawer includes a spare fuse. This should be replaced by one of the same rating.

# **Service and guarantee**

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## **Service**

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The Meridian 500 Series of hi-fi components have been carefully designed to give years of untroubled service. There are no user-serviceable parts inside the case, nor do the units require any form of maintenance.

In the unlikely event that your Stereo Power Amplifier fails to function correctly, it should be returned, in its original packaging, to your Meridian dealer.

In case of difficulty within the UK or USA please contact the appropriate sales and service address shown on page ii.

In case of difficulty outside the UK or USA, contact the importing agent for the territory. A list of Meridian agents abroad is available from Meridian Audio.

No responsibility can be accepted for the Stereo Power Amplifier whilst in transit to the factory or an agent, and customers are therefore advised to insure the unit.

When seeking service under guarantee, proof of the date of purchase will be required.

## **Guarantee**

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The 557 Stereo Power Amplifier is guaranteed against defects in material and workmanship for two years from the date of purchase.

The guarantee is void if the 557 Stereo Power Amplifier has been subject to misuse, accident, or negligence, or has been tampered with or modified in any way without the written authorisation of Meridian Audio Limited. Attempted servicing by unauthorised people may also invalidate this guarantee. Labour and carriage charges are not covered unless by local agreement.

Outside the UK, local warranty liability is restricted to equipment purchased within the territory. Our agents abroad are only under contractual obligation to service under guarantee equipment sold through them. They are entitled to make a non-refundable charge for any service carried out on other equipment.

This guarantee does not limit your statutory rights within the United Kingdom.

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